

Economic Impacts of *The Strain*

Prepared for the Motion Picture Association – Canada

July 2018

TABLE OF CONTENTS

Introduction	2
Study Purpose	2
Season Four Production Spending	3
Economic Impacts of Season Four Production Spending	5
Economic Impacts of Total Production Spending.....	5
Comparisons with Other Industries.....	6
Additional Impacts	6
Appendix A – Economic Impact Methodology	7

INTRODUCTION

The thriller drama television series *The Strain* aired from July 13, 2014 to September 17, 2017 on cable network channel FX. The series followed Dr. Ephraim Goodweather as he fought to save New York City after uncovering a viral outbreak related to vampirism.¹ The series was based on the novel of the same name written by Guillermo del Toro and Chuck Hogan.²

Table 1 summarizes the premiere dates and number of episodes for *The Strain*.

Table 1: *The Strain* Production Pattern

	Season One	Season Two	Season Three	Season Four
Premiere Date	July 13, 2014	July 12, 2015	August 28, 2016	July 16, 2017
Number of Episodes	13	13	10	10

Source: IMDB

Filming of the television series *The Strain* was primarily in and around Toronto. Throughout the production of the series, significant economic impacts were created for Ontario residents and businesses, while substantial tax revenues accrued to federal, provincial and local governments.

STUDY PURPOSE

MNP LLP (MNP) was engaged by the Motion Picture Association – Canada to conduct an independent economic impact assessment of the production of the television series *The Strain* on the Ontario economy. For the study, MNP used data from Fox Entertainment Group to estimate the economic impacts in Ontario arising from the production of the 10 episodes in Season Four.

¹ IMDB. "The Strain." Retrieved from: https://www.imdb.com/title/tt2654620/plotsummary?ref_=tt_stry_pl

² TV Tropes. "The Strain." Retrieved from: <http://tvtropes.org/pmwiki/pmwiki.php/Series/TheStrainTVSeries>

SEASON FOUR PRODUCTION SPENDING

Season Four production spending engaged 632 vendors from 65 communities across Ontario (Table 2). This included vendors from 32 communities within the Greater Toronto Area, as well as from 33 communities in other regions of Ontario.

Production of Season Four required the engagement of a wide variety of Ontario vendors, including retailers, production facilities, security services, equipment rental companies, dry cleaners, hotels and restaurants, catering companies, automobile rental companies, alteration and repair services, and hair and make-up services.³

Table 2: Season Four Ontario Vendor Data

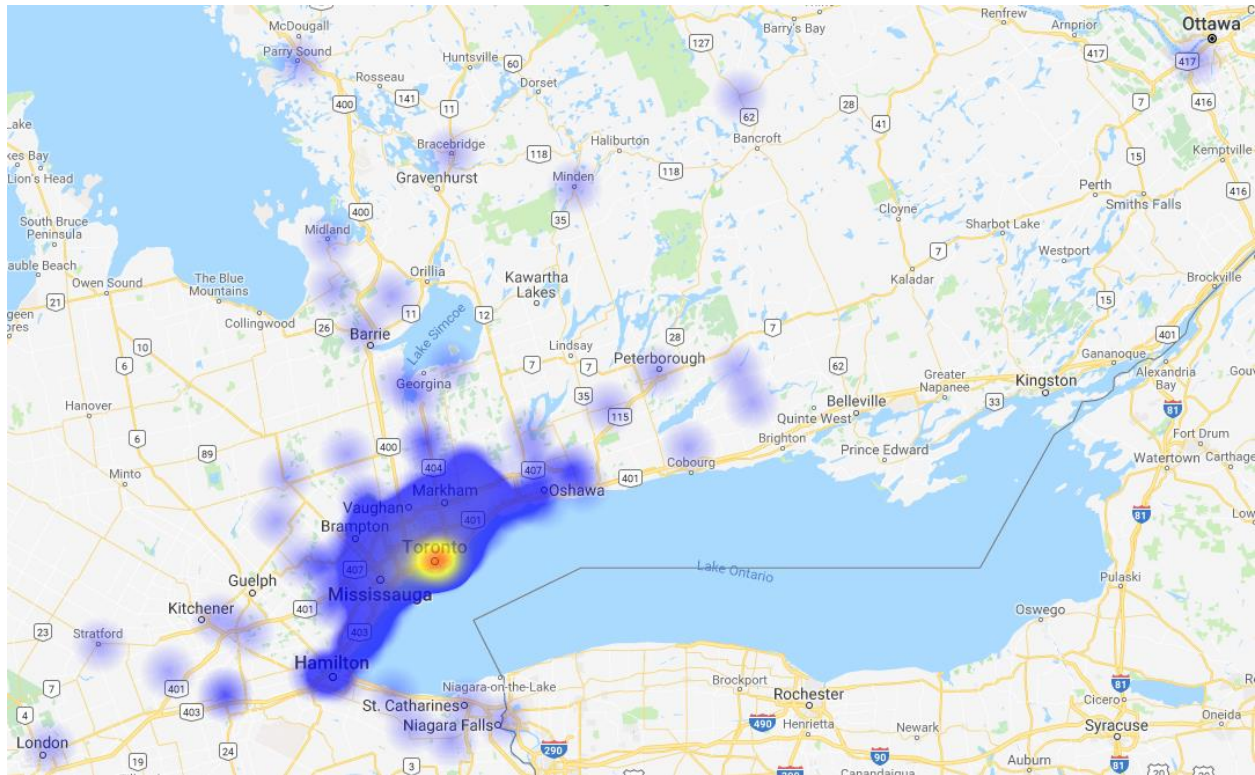
Vendors	Number
Ontario Businesses	541
Ontario Individuals	91
Total Number of Vendors	632
Communities	
Greater Toronto Area	32
Other Regions of Ontario	33
Total Number of Communities	65

Source: Fox Entertainment Group

³ Based on vendor data provided by Fox Entertainment Group.

The following heatmap shows the concentration of vendors by location for Season Four. (Please note that the red zones indicate the highest concentration of Ontario vendors, while yellow and blue zones indicate a moderate number of vendors).

Heatmap 1: Concentration of Ontario Vendors by Location for Season Four



Source: Fox Entertainment Group

As shown in Table 3, production of Season Four of *The Strain* was associated with total spending in Ontario of approximately \$50.8 million. Spending on wages, salaries and per-diems for Ontario production crew and other labour comprised 53 percent of the total Ontario expenditures, and the remaining 47 percent was spent on purchases of Ontario goods and services.

Table 3: Season Four Production and Post-Production Expenditures in Ontario

	Expenditures (in millions)	Share of Expenditures
Ontario Production Crew and Qualifying Labour ⁴	\$26.9	53%
Ontario Purchases (Spending on Goods and Services)	\$23.9	47%
Total Ontario Spending	\$50.8	100%

Source: Fox Entertainment Group

⁴ Please note that the analysis excludes production spending on non-resident labour.

ECONOMIC IMPACTS OF SEASON FOUR PRODUCTION SPENDING

Using Statistics Canada’s input-output multipliers for Ontario and the Season Four production expenditure data provided by Fox Entertainment Group, MNP estimated the total economic impacts (i.e. direct, indirect and induced) in Ontario arising from \$50.8 million in production spending for Season Four. The results of this analysis are presented in Table 4. For more information on economic impact measures and the methodology used, please see Appendix A.

Table 4: Estimated Economic Impacts of Season Four Production Spending in Ontario

	Season Four Production Impacts
Direct Production Expenditure in Ontario (in millions)	\$50.8
Total Output (in millions)	\$95.4
Total GDP (in millions)	\$64.6
Total Employment (in full-time equivalent positions or FTEs⁵)	799

According to Fox Entertainment Group, Season Four of *The Strain* is estimated to benefit from approximately \$2.9 million in federal tax incentives and \$8.9 million in provincial tax incentives. The incentives provided by the Government of Ontario are estimated to have resulted in the following total impacts:

- \$10.7 in economic output per dollar of Ontario tax incentive received by the production.
- \$7.2 in provincial GDP per dollar of Ontario tax incentive received by the production.

ECONOMIC IMPACTS OF TOTAL PRODUCTION SPENDING

According to Fox Entertainment Group, production of Seasons One through Four of *The Strain* was associated with total spending in Ontario of approximately \$209 million. Using Statistics Canada’s input-output multipliers for Ontario and production expenditure data provided by Fox Entertainment Group, MNP estimated the total economic impacts (i.e. direct, indirect and induced) in Ontario generated over the life of the series (i.e. Seasons One through Four). The estimated economic impacts generated over the life of the series amounted to roughly four times that from Season Four. These impacts are presented in Table 5.

Table 5: Estimated Economic Impacts of Seasons One through Four Production Spending in Ontario

	Seasons One through Four Production Impacts
Direct Production Expenditure in Ontario (in millions)	\$209.0
Total Output (in millions)	\$390.4
Total GDP (in millions)	\$267.5
Total Employment (in FTEs)	3,331

⁵ One FTE is equivalent to one person-year of employment.

COMPARISONS WITH OTHER INDUSTRIES

To provide perspective on the size of the economic impacts of the production of *The Strain*, it is useful to compare the impacts with those created by other industries. Two examples of other industries are new home construction and tourism:

- **New Home Construction** – The estimated total employment supported by the Season Four production of *The Strain* is equivalent to the direct and indirect employment supported by the construction of 352 new homes in Toronto.⁶ The estimated total employment supported over all four seasons of production is equivalent to that supported by the construction of 1,470 new homes.⁷
- **Tourism/Overnight Visitors** – The estimated total employment supported by production spending on Season Four of *The Strain* is equivalent to the employment supported by the spending of about 35,500 overnight visitors to Toronto.⁸ The estimated total employment supported over all four seasons of production spending is equivalent to the employment supported by the spending of about 148,000 overnight visitors to Toronto.⁹

ADDITIONAL IMPACTS

In addition to economic impacts that arise through production spending, television series such as *The Strain* can produce impacts that result from infrastructure spending, film induced tourism and personal spending by non-resident labour.

- **Infrastructure Impacts** – Infrastructure spending includes expenditures associated with production facilities and equipment. While the economic impacts of infrastructure spending have not been assessed in this report, it is important to note that the impacts can be significant.
- **Film Induced Tourism Impacts** – Film induced tourism (FIT) is the phenomenon of films and television programs encouraging viewers to visit the country or region where filming occurred.¹⁰ FIT and its related tourism concepts, which include the effects of TV, films, movies and media culture, have increasingly been viewed as an important component of tourism marketing. Television series are especially likely to reach much larger audiences than specifically targeted tourism promotion.¹¹
- **Personal Spending by Non-resident Labour while in Ontario** – This may include spending by non-resident labour on vacations or other personal purchases while on location in Ontario.

While we have not quantified the broader benefits of the production of *The Strain* in this study, it is worth noting that film and television production can also generate additional economic, community and social benefits. These may include the creation of opportunities for trainees or interns, the development of business partnerships, the creation of spin-off companies, and contributions to community and culture.

⁶ Will Dunning Inc. “Economic Impacts of New Home Construction – Toronto 2017.” Retrieved from: <http://www.chba.ca/uploads/Economic%20Impacts/Toronto%20New%20Construction%20Impact,%202014.pdf>

⁷ Ibid.

⁸ Tourism Toronto. “Tourism Toronto Infographic – 2015.” Retrieved from: <http://partners.seetorontonow.com/wp-content/uploads/sites/7/2016/02/tourism-toronto-infographic-record-tourism-2015.pdf>

⁹ Ibid.

¹⁰ Oxford Economics. 2007. “The Economic Impact of the UK Film Industry.”

¹¹ Croy, Glen W. 2004. “The Lord of the Rings, New Zealand, and Tourism: Image Building with Film.”

APPENDIX A – ECONOMIC IMPACT METHODOLOGY

The main goal of an economic impact study is to quantify the economic contributions that an organization, industry, or project makes to a region.

MNP estimated the economic impact of the production of *The Strain* using the 2013 Statistics Canada provincial input-output multipliers for Ontario (the latest multipliers available). Statistics Canada's input-output model is the most widely used system for measuring economic impacts in Canada, and provides a measure of the interdependence between an industry and the rest of the economy.¹² The provincial economic multipliers show the direct, indirect and induced effects on economic metrics, and can be used to measure the quantitative impact of a change in the production or expenditure of a particular industry.

In general, economic impacts are viewed as being restricted to quantitative, well-established measures of economic activity. The most commonly used of these measures are output, GDP and employment:

- **Output** – the total gross value of all business revenue. This is the broadest measure of economic activity.
- **Gross Domestic Product (GDP)** – the “value added” to the economy (the unduplicated total value of goods and services).
- **Employment** – the number of jobs created or supported (in full-time equivalents or FTEs¹³).

Economic impacts may be estimated at the direct, indirect and induced levels:

- **Direct impacts** are due to changes to front-end businesses that receive expenses or operating revenue as a direct consequence of the activities of an industry or project.
- **Indirect impacts** are due to changes in the activity of suppliers of the front-end businesses.
- **Induced impacts** are due to shifts in spending on goods and services as a consequence of changes to the payroll of the directly and indirectly affected businesses.

In this analysis, MNP estimated the impact on the Ontario economy of a set of direct expenditures related to the filming of Season Four of *The Strain*. The television series, like other productions, has an amount of direct expenditure, which in turn stimulates so-called indirect impacts across the industry supply chain. These expenditures also create or support jobs, as firms add or retain labour to meet rising demand. This, in turn, raises incomes and stimulates what are known as induced impacts, as higher incomes flow through to consumption. The total economic impact of the production spending is the sum of each of these direct, indirect and induced impacts.

¹² Note that Statistics Canada's input-output model is based on the assumption that there is no social safety net, i.e. those that do not earn wages have no income from social assistance or unemployment programs, and therefore all induced spending is new spending in the economy. Economic impacts estimated with a social safety net assumption would be slightly lower.

¹³ One FTE is equivalent to one person-year of employment.

A step-by-step overview of our approach to estimating the economic impacts of *The Strain* is provided below.

